

But these cases are rare, and it usually depends entirely upon the nurse how she is treated by the servants. Her position is a little difficult; not being a guest nor a regular member of the household, appearing at a time of trouble and general upsetting of the family life, it is by the strength of her personal character that she will create her own place in the family life, where she is often treated nowadays as an honored guest and—with rare exceptions—always as a lady.

(To be continued.)

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## HOME ECONOMICS

By ALICE P. NORTON

Assistant Professor of Home Economics of the School of Education, University of Chicago

(Continued from Vol. III., page 448)

[In the last volume we published four of what we promised should be a series of articles entitled "Home Economics," by Mrs. Alice P. Norton, assistant professor of home economics of the School of Education, University of Chicago. Owing to pressure of university work Mrs. Norton was unable to continue these papers at that time,—the last number appearing in March,—but she begins them again with the assurance that the series shall be completed without another break.—Ed.]

### V. PROTEIDS AND THEIR USES CONTINUED

If it be true, as Mrs. Richards has said, that "the prosperity of a nation depends upon the health and the morals of its citizens, and the health and the morals of a people depend mainly upon the food they eat and the homes they live in," the right selection of food becomes of the utmost importance. The various uses of food must be recognized and the nature and function of the different food principles studied that the proportions needed under varying conditions of age, activity, and climate may be ascertained.

The body differs from the ordinary machine, to which it is so often compared, in that it not only needs fuel to produce heat, partly utilized as heat and partly transformed into work, internal and external, but it must also obtain building material to provide for its own growth and to repair the waste that is constantly going on.

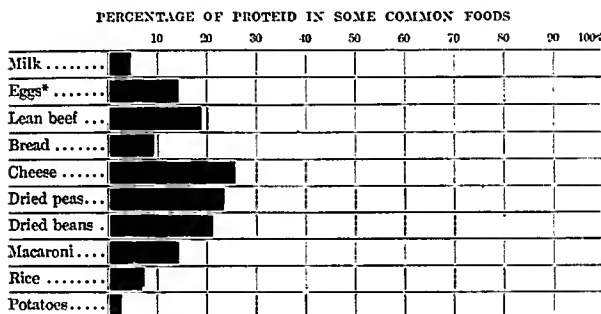
This latter function can be fulfilled only by one class of foods, the proteids, while these can also act as fuel foods. It is this fact which gives the proteids so great importance that we largely estimate the "value" of a food by the amount of proteid that it contains.

Childhood, the age of growth, especially demands food containing

a large proportion of proteid in comparison with the other nutritive ingredients—in other words, food having a high “nutrient-ratio.” Eggs and milk are both foods of this kind, as would be supposed, since they are nature’s “infant foods.”

Perhaps when man has become more civilized he may obtain his food without the taking of life, but at present meat forms the chief source of proteid for a large portion of adults. Vegetable proteids are abundant in wheat and other cereals and in the dried seeds of plants of the pulse family, such as peas, beans, and lentils.

The following chart shows the average proportion of proteid in a few of our common food materials:



\* Edible portion.

#### TRANSLATED INTO TERMS OF POUNDS AND OUNCES

	CONTAINS ABOUT
One pound of milk (one pint) .....	$\frac{1}{2}$ ounce of proteid
One pound of eggs (ten to eleven, without shell)...	$2\frac{1}{2}$ ounces of proteid
One pound of beef .....	$2\frac{1}{2}$ ounces of proteid
One pound of bread (one small loaf) .....	$1\frac{1}{2}$ ounces of proteid
One pound of cheese .....	$4\frac{1}{2}$ ounces of proteid
One pound of peas .....	4 ounces of proteid
One pound of beans .....	$3\frac{1}{2}$ ounces of proteid
One pound of macaroni .....	$2\frac{1}{2}$ ounces of proteid
One pound of rice (two cups) .....	$1\frac{1}{2}$ ounces of proteid
One pound of potatoes (two large or three medium potatoes) .....	$\frac{1}{2}$ ounce of proteid

In other words, one pound of lean beef yields about as much proteid as three quarts of milk, or a dozen eggs, or two five-cent loaves of baker’s bread.

We must remember, however, that the proteid of the meat represents

its total food value much more nearly than the proteid of milk or of bread represents their total food value. Another factor that must be kept in mind is the amount of the different foods that one can eat and digest. It would not be difficult, for instance, for a hungry person to eat half a pound of beefsteak at one meal, while six eggs at a meal would be beyond the capacity of almost anyone.

When we use our meat for soup or beef-tea, even if we make these by the best methods, we succeed in extracting only a small amount of the proteid of the meat. The rest remains behind in the "soup-meat," and this should, therefore, not be thrown away, but, made palatable by proper seasoning or by combination with a little fresh meat, be utilized as food.

The flavor of the soup or beef-tea is due to certain nitrogenous compounds called extractives, which are stimulating rather than nutritious. The slight nutritive value that the soup possesses is due chiefly to gelatin, another nitrogenous compound, closely allied to the true proteids. The food value of this substance was long in dispute. At first it was thought to be of great importance as a source of nitrogen; then the opposite conclusion was reached, and it was considered of no value at all. Careful investigation has proved that neither of these extremes is true. Gelatin, while containing the same elements as true proteid, cannot replace it as a tissue-builder, but it can be substituted for a portion of the necessary proteid and perform its functions.

(To be continued.)

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## THE WORLD'S WAR AGAINST CONSUMPTION

COMPILED BY L. L. DOCK

(Continued from Vol. III., page 950)

"During the past year the United Hebrew Charities has carried on a study of the conditions in New York under which sufferers from tuberculosis live and has formulated a plan for their betterment and, where possible, their cure.

"The plan, in brief, is as follows:

"(1) To treat in their homes consumptives who are waiting admission to sanatoria, whose cases are not suitable for sanatorium treatment, or whose condition prevents the removal of the patient from the home.

"(2) To improve the sanitary surroundings of consumptives, and to teach them the prevention of infection and reinfection.

"(3) To supply relief, particularly suitable nourishment.